DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

69.28 File #:

WELDING INSPECTION REPORT

Resident Engineer: Siegenthaler, Peter **Report No:** WIR-023059

Address: 333 Burma Road **Date Inspected:** 20-Mar-2011

City: Oakland, CA 94607

OSM Arrival Time: 700 **Project Name:** SAS Superstructure **OSM Departure Time:** 1900 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

CWI Name: CWI Present: Yes Mr. Xu Le Feng. No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A Yes N/A **Electrode to specification:** No Weld Procedures Followed: Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes N/A **Approved Drawings:** Yes No **Approved WPS:** No Yes No N/A **Delayed / Cancelled:**

34-0006 **Bridge No: Component:** Tower and Orthotropic Box Girder (OBG)

Summary of Items Observed:

On this day CALTRANS OSM Quality Assurance (QA) Inspector Shailesh Gaikwad was present during the times noted above for observations relative to the fabrication of the SAS Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island in Shanghai, China. QA observed and/or found the following:

BAY 11

This QA Inspector performed randomly Visual Inspection and Magnetic Particle Testing (MT) of approximately 15% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated a TL- 6028 (MT) report for this date. The member is identified as East, West Tower lift 6. The weld designations reviewed are as follows.

ESD1-FDSA6-2-10, 12

ESD1-FESA6-2-6

ESD1-FBSA6-2-4

WSD1-FDSA6-4-13, 14

WSD1-FESA6-4-6

WSD1-FBSA6-4-6

ESD1-TL6-2B/D-67

ESD1-TL6-2C/D-13

WSD1-TL6-4B/D-67

WSD1-TL6-2C/D-19

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NDT Notification No-08582

This QA Inspector observed the following work in progress:

BAY 10, FCAW Process:

This QA Inspector observed ZPMC qualified welding personnel identified as 040367 Perform Flux Core Arc Welding (FCAW) on OBG Cantilever beam. Joint identified as BK17B-001-016. ZPMC QC Identified as Sun Zhi Wang. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-2231-ESAB.

This QA Inspector observed ZPMC qualified welding personnel identified as 040302 Perform Flux Core Arc Welding (FCAW) on OBG Bike Path. Joint identified as BK010A6-001-041, 042. ZPMC QC Identified as Zhu Feng. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-2232-ESAB.

This QA Inspector observed ZPMC qualified welding personnel identified as 040302 Perform Flux Core Arc Welding (FCAW) on OBG Bike Path. Joint identified as BK010A6-001-115, 116, 021, 158, 031, 032, 033, 034. ZPMC QC Identified as Zhu Feng. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-2233-ESAB.

SAW Process:

This QA Inspector observed ZPMC qualified welding personnel identified as 209051 Perform Submerged Arc Welding (SAW) on OBG Cantilever beam. Joint identified as BK15-001-016. ZPMC QC Identified as Sun Zhi Wang. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-2221-Tc-U4a-S.

SMAW Process:

This QA Inspector observed ZPMC qualified welding personnel identified as 056364, 057258 Perform Shielded Metal Arc Welding (SMAW) on OBG Bike Path. Joint identified as BK010A1-001-044. ZPMC QC Identified as Zhu Feng. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-P-2214-B-U2.

BAY 11: SMAW Process,

This QA Inspector observed ZPMC qualified welding personnel identified as 202354 Perform Shielded Metal Arc Welding (SMAW) on East Tower lift 6 Skin E. Joint identified as ESD1-FESA6-2-9, 10. ZPMC QC Identified as Mao Bin Bin. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-P-2113. For more information see attached picture number 1.

BAY 11:

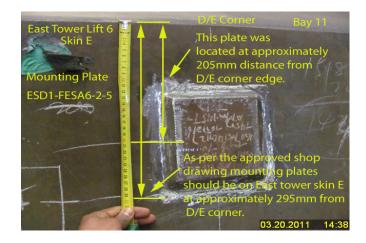
During random visual inspection in Bay 11, this Quality Assurance Inspector (QA) discovered the following issue: One (1) mounting plate was welded at wrong locations on East Tower, Lift 6 Skin 'E'. As per the approved shop drawing mounting plates should be on East tower skin E at approximately 295 mm from D/E corner. This plate was located at approximately 205mm distance from D/E corner edge. The fillet weld identified as

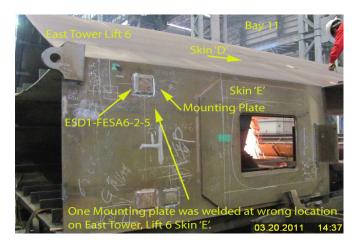
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ESD1-EFSA6-2-5. The member is located in Bay#11. For further information, please see the attached pictures: This QA Inspector generated incident report for this date.

Unless otherwise noted, all work observed on this date appeared to be in general compliance with the applicable contract documents.





Summary of Conversations:

Only general conversation was held between QA and QC concerning this project.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Thomas Ho: 150002048250, who represents the Office of Structural Materials for your project.

Inspected By:	Gaikwad,Shailesh	Quality Assurance Inspector
Reviewed By:	Clifford,William	QA Reviewer